

Patent
Attorney Docket No.: LYNN-0162

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (currently amended) An assembly for an electrochemical cell, comprising:
a plurality of self-aligning plates, each plate having at least one manifold passage, at least one plurality of non-continuous projections extending outward from the plane of the plate, and at least one plurality of non-continuous recesses adapted to receive the ends of the configured for frictionally receiving the non-continuous projections of another adjacent one of the plates, such that corresponding manifold passages of the plates are aligned.
2. (currently amended) The assembly of claim 1, wherein the at least one non-continuous recesses is adapted to frictionally engage the ends of the projections of another plate received therein.
3. (currently amended) The assembly of claim 1, wherein the projections and recesses interlock only when the corresponding manifold passages of the plates are aligned, to maintain the relative position of the plates.
4. (currently amended) The assembly of claim 1, wherein the depth of the recesses is sufficient to receive equal to or greater than a length of the received projections without limiting compression of the plates.
5. (currently amended) The assembly of claim 1, wherein the plurality of plates includes at least one plate having whose projections are made from a polymer and are elastically deformed when disposed in the corresponding recesses.

Patent
Attorney Docket No.: LYNN-0162

6. (currently amended) The assembly of claim 1, ~~wherein the at least one projection is a plurality of projections positioned on the plates in a manner that will only interlock with the recesses of another of the plates if the relative orientation of the plates provides proper alignment of a plurality of manifolds in the plates.~~

wherein the projections and the recesses are asymmetrically positioned on their respective plates with respect to a central bore.

7. (original) The assembly of claim 6, wherein the plurality of projections are not evenly spaced about the plates.

8. (original) The assembly of claim 1, further comprising:
an adhesive disposed between two of the self-aligning plates.

9. (currently amended) The assembly of claim 1, wherein two or more of the ~~interlocking~~ self-aligning plates are coupled within a subassembly.

10. (original) The assembly of claim 1, wherein a self-aligning plate of a first subassembly is coupled to a self-aligning plate of a second subassembly.

11. (currently amended) The assembly of claim 1, further comprising:
an intermediate plate disposed between two of the self-aligning plates and having at least one passageway through the intermediate plate for alignment with the at least one projection of an adjacent self-aligning plate.

12. (original) The assembly of claim 1, wherein the self-aligning plates comprise interlocking frames.

Patent
Attorney Docket No.: LYNN-0162

13. (withdrawn) A bipolar plate assembly for an electrochemical cell, comprising:
- a first interlocking plate having at least one projection extending outward from the plane of the first plate;
 - a second interlocking plate having at least one recess adapted to receive the ends of the projections of the first plate; and
 - a gas barrier disposed between the first and second interlocking plates and having at least one passageway through the barrier for alignment with the at least one projection of the first plate.
14. (withdrawn) The bipolar plate assembly of claim 13, wherein the second plate has at least one projection extending outward from the plane of the second plate, the assembly further comprising:
- a third interlocking plate having at least one recess adapted to receive each of the at least one projection from the second plate; and
 - a second gas barrier disposed between the second and third interlocking plates and having at least one passageway through the second gas barrier for alignment with the at least one projection of the second plate.
15. (withdrawn) The bipolar plate assembly of claim 13, wherein the first and second plates form flowfields.
16. (withdrawn) The bipolar plate assembly of claim 3, wherein the first and third plates form reactant flowfields and the second plate forms a cooling fluid flowfield.